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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/297,256	04/28/99	SUNDHOLM	G U012229-2

LADAS & PARRY
26 WEST 61ST STREET
NEW YORK NY 10023

QM01/0508

EXAMINER

KIM, C

ART UNIT	PAPER NUMBER
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3752

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DATE MAILED: 05/08/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/297,256

Applicant(s)
Sundholm

Examiner
Christopher S. Kim

Art Unit
3752



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3 Apr 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

Request for Continued Examination

1. The Request for Continued Examination (RCE) filed on April 3, 2001 is acceptable and an RCE has been established. An action on the RCE follows.

Response to Amendment

2. Preliminary amendment filed April 3, 2001 is acknowledged.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 13 and 14 recite: a tube system for leading extinguishing medium from an extinguishing medium source having a volume; a long tube constituting part of the tube system;

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and the volume of the extinguishing medium source consists essentially of a volume of the long tube. If the long tube is part of the tube system and the tube system leads extinguishing medium from an extinguishing medium source to the spray heads, how can the extinguishing medium source consist essentially of the volume of the long tube. It appears that the claims initially recite the long tube and the extinguishing medium source as two separate elements and then later recite the long tube and the extinguishing medium source as the same element.

Claim 13 recites the limitation “the long tube has a length of at least hundreds of meters”. It is uncertain what value is being defined by the phrase “at least hundreds”.

Claim Rejections - 35 USC § 102

6. Claims 1-6, 11 and 12 (as best understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Sundholm.

Sundholm discloses, in figure 1, a fire fighting apparatus comprising: a plurality of spray heads 1, 1a; a tube system 3, 4; at least one drive gas source 2; a release means (inherent in the device); and a stop/opening valve (no reference number but shown downstream of each gas source). The apparatus is divided into main sections, each containing a gas source 2. Figure 1 shows one spray head 1 per zone while figure 2 shows multiple spray heads 13 per zone. The drive gas is nitrogen (column 1, line 40) having a pressure of 30 to 400 bar (column 2, line 65 discloses 100 to 200 bar). The spray heads generate fog-like spray of water (column 1, line 41 and line 51).

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It is noted that the transitional phrase “consists essentially of” has been construed as equivalent to “comprising” (See MPEP 2111.03).

Claim Rejections - 35 USC § 103

7. Claims 1, 2, 13 and 14 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over McGee, Jr. in view of Miller et al.

McGee, Jr. discloses a fire fighting apparatus comprising: a plurality of spray heads 18, a tube system 10, 17; an extinguishing medium source (volume of the tube system 10); a long tube 10. McGee, Jr. does not disclose at least one drive gas source. Miller et al. discloses at least one drive gas source 53. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have incorporated the at least one drive gas source of Miller et al. to the device of McGee, Jr. to aid in expelling the extinguishing medium (Miller et al., column 4, lines 1-2).

8. Claims 13 and 14 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundholm.

Sundholm discloses, in figure 1, a fire fighting apparatus comprising: a plurality of spray heads 1, 1a; a tube system 3, 4; at least one drive gas source 2; a release means (inherent in the device); a long tube 3; and a stop/opening valve (no reference number but shown downstream of each gas source). The apparatus is divided into main sections, each containing a gas source 2. Figure 1 shows one spray head 1 per zone while figure 2 shows multiple spray heads 13 per zone.

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The drive gas is nitrogen (column 1, line 40) having a pressure of 30 to 400 bar (column 2, line 65 discloses 100 to 200 bar). The spray heads generate fog-like spray of water (column 1, line 41 and line 51). Sundholm does not disclose the tube having a length of at least about 1 km or hundreds of meters. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have made the long tube of Sundholm at least 1 km for large ships.

9. Claims 7 and 8 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundholm as applied to claim 6 above, and further in view of Willms.

Willms discloses, in figure 1, a fire fighting apparatus with zone 1 and zone 2 each zone having a release means 20, 20A arranged along tube 12 for releasing a group of spray heads 15, 15A. Each group of spray heads contains a solenoid valve 17, 17A. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the zone release means and solenoid valve of Willms in the fire fighting apparatus of Sundholm to conserve the extinguishing medium.

10. Claims 9 and 10 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundholm as applied to claim 1 above, and further in view of Jamison.

With respect to claim 9, Jamison discloses, in column 5, lines 6-11, a text by Donald W. Mitchell titled Mines Fires where fog-like spray water is critical in fighting mine fires. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the fire fighting apparatus of Sundholm in a mine tunnel as disclosed by Jamison. The device of Sundholm placed in a tunnel would inherently follow the longitudinal direction of the tunnel.

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With respect to claim 10, Sundholm discloses, in column 3, lines 23-25, spray heads 22, 23 arranged in opposite direction. Sundholm does not disclose different heights at which the spray heads are placed. The height placement of spray heads is a matter of design choice in directing the spray of water to a particular location.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (703) 308-8336. The examiner can normally be reached on Monday-Thursday from 6:30 a.m. to 5:00 p.m.

The fax phone number for this Group is (703) 308-7766.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

CK

May 4, 2001


David A. Scherbel
Supervisory Patent Examiner
Group 3700